Amendments to the claims are presented herein by presenting a complete set of pending claims, as amended, in clean form. Also, an Appendix entitled "Version With Markings to Show Changes Made," showing the current amendments to the claims is attached hereto.

Please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace the previous version of the claims with the following clean version, wherein claims 1, 2, 7, 10, 11, and 16 incorporate new amendments thereto.

1. (Twice Amended) A viewing optical system comprising:

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner comprising a reflective type hologram and having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil; and

an information display device for displaying information on the equivalent surface,

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

C1

2. (Once Amended) A viewing optical system comprising:

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil;

an information display device for displaying information on the equivalent surface;

a mirror for reflecting the image formed by the objective system;

a focusing screen;

a condenser lens; and

a pentagonal prism for inverting the image, said pentagonal prism having a plurality of surfaces, said hologram combiner being disposed on one of said plurality of surfaces,

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

3. A viewing optical system, as claimed in claim 2, wherein said information display device comprises an illumination light source and a display element, said display

element being for modulating light from the illumination light source so as to display information on the equivalent surface.

4. A viewing optical system, as claimed in claim 2, wherein said information display device comprises:

an illumination light source;

a display element, said display element being for modulating light from the illumination light source so as to display information on the equivalent surface;

an image reforming mirror;

an image forming lens; and

an incidence surface,

wherein said display element modulates light from the illumination light source so as to display information, said image reforming mirror reflects the information, displayed by the display element, toward the image forming lens, and said image forming lens transmits the thus reflected information to the equivalent surface.

Cont'd C1

5. A viewing optical system, as claimed in claim 2, said information display device comprising:

an illumination light source;

a display element; and

an image forming lens having a selective reflective surface,

wherein said display element modulates light from the illumination light source so as to display information and said image forming lens transmits the thus displayed information to the equivalent surface.

6. A viewing optical system, as claimed in claim 2, wherein said information display device comprises:

an illumination light source;

a display element; and

an image forming prism,

wherein said display element modulates light from the illumination light source so

as to display information and the image forming prism transmits the thus displayed information to the equivalent surface.

7. (Once Amended) A viewing optical comprising:

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil;

Cont'd C1

an information display device for displaying information on the equivalent surface;

a field frame; and

an inverting system comprising a first prism and a second prism arranged with a small space therebetween, the small space forming a TIR surface, the hologram combiner being disposed on a second prism side of the TIR surface,

wherein the objective system comprises a plurality of lenses and a prism, and

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

8. A viewing optical system, as claimed in claim 1, wherein the viewing optical system is a reverse Galileo type optical system.

9. A viewing optical system, as claimed in claim 1, further comprising a relay lens for inverting the image.

10. (Twice Amended) An optical apparatus comprising a viewing optical system, said viewing optical system comprising:

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner comprising a reflective type hologram and having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil; and

an information display device for displaying information on the equivalent surface,

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

11. (Once Amended) An optical apparatus comprising a viewing optical system, said viewing optical system comprising:

Cont'd C1

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil;

an information display device for displaying information on the equivalent surface;

a mirror for reflecting the image formed by the objective system;

a focusing screen;

a condenser lens; and

a pentagonal prism for inverting the image, said pentagonal prism having a plurality of surfaces, said hologram combiner being disposed on one of said plurality of surfaces,

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

12. An optical apparatus, as claimed in claim 11, wherein said information display device comprises an illumination light source and a display element, said display element being for modulating light from the illumination light source so as to display information on the equivalent surface.

13. An optical apparatus, as claimed in claim 11, wherein said information display device comprises:

an illumination light source;

a display element, said display element being for modulating light from the illumination light source so as to display information on the equivalent surface;

an image reforming mirror;

an image forming lens; and

an incidence surface,

wherein said display element modulates light from the illumination light source so as to display information, said image reforming mirror reflects the information, displayed by the display surface, toward the image forming lens, and said image forming lens transmits the thus reflected information to the equivalent surface.

Cont'd C1

14. An optical apparatus, as claimed in claim 11, said information display device comprising:

an illumination light source;

a display element; and

an image forming lens having a selective reflective surface,

wherein said display element modulates light from the illumination light source so as to display information and said image forming lens transmits the thus displayed information to the equivalent surface.

15. An optical apparatus, as claimed in claim 11, wherein said information display device comprises:

an illumination light source;

a display element; and

an image forming prism,

wherein said display element modulates light from the illumination light source so as to display information and the image forming prism transmits the thus displayed information to the equivalent surface.

16. (Once Amended) An optical apparatus comprising a viewing optical system, said viewing optical system comprising:

an objective system for forming on an image surface an image of an object;

an eyepiece system for enlarging and directing the image to a pupil;

a hologram combiner having an optical power for constructing an equivalent surface which is optically equivalent to the image surface at a different position than the image surface as viewed from the pupil;

an information display device for displaying information on the equivalent surface;

a field frame; and

an inverting system comprising a first prism and a second prism arranged with a small space therebetween, the small space forming a TIR surface, the hologram combiner being disposed on a second prism side of the TIR surface,

wherein the objective system comprises a plurality of lenses and a prism, and

wherein the hologram combiner transmits light from the image and reflects light from the information display device so that the image can be viewed with the information overlaid thereon.

Cont'd C1

17. An optical apparatus, as claimed in claim 10, wherein the viewing optical system is a reverse Galileo type optical system.

18. An optical apparatus, as claimed in claim 10, further comprising a relay lens for inverting the image.